PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

| Applicant's or agent's file reference | | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|--|
| 000004011PCT | FOR FURTHER ACTION | See Form PCT/IPEA/416 | | | | | | | | |
| International application No. | International filing date (day/m | onth/year) Priority date (day/month/year) | | | | | | | | |
| PCT/JP2004/003662 | 18.03.2004 | 20.03.2003 | | | | | | | | |
| International Patent Classification (IPC) or nat | ional classification and IPC | | | | | | | | | |
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| Applicant | | | | | | | | | | |
| EISAI CO., LTD. | | | | | | | | | | |
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| This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36. | | | | | | | | | | |
| 2. This REPORT consists of a total of | 6 | sheets, including this cover sheet. | | | | | | | | |
| 3. This report is also accompanied by A | | - | | | | | | | | |
| a. (sent to the applicant and | to the International Bureau) a te | otal of sheets, as follows: | | | | | | | | |
| | • | ich have been amended and are the basis for this report and/or | | | | | | | | |
| | | othority (see Rule 70.16 and Section 607 of the Administrative | | | | | | | | |
| the disclosure in the | sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental | | | | | | | | | |
| Box. | | | | | | | | | | |
| b (sent to the International | Bureau only) a total of (indicate | type and number of electronic carrier(s)) | | | | | | | | |
| | | , containing a sequence listing and/or tables | | | | | | | | |
| related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions). | | | | | | | | | | |
| 4. This report contains indications relat | ing to the following items: | | | | | | | | | |
| Box No. I Basis of th | e report | | | | | | | | | |
| Box No. II Priority | | | | | | | | | | |
| Box No. III Non-establ | ishment of opinion with regard to | novelty, inventive step and industrial applicability | | | | | | | | |
| · | ity of invention | | | | | | | | | |
| Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement | | | | | | | | | | |
| Box No. VI Certain do | cuments cited | | | | | | | | | |
| Box No. VII Certain de | fects in the international applicati | on | | | | | | | | |
| Box No. VIII Certain observations on the international application | | | | | | | | | | |
| Date of submission of the demand | | completion of this report | | | | | | | | |
| Sate of outside of the delinate | Date of t | completion of time report | | | | | | | | |
| Name and mailing address of the IPEA/JP | Authoriz | ed officer | | | | | | | | |
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Translation

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| Box | No. I | Basis of the report | | | | | |
|-----|---|--|--|--|--|--|--|
| 1. | | regard to the language, this report is based on the internation ated under this item. | al application in the language in which it was filed, unless otherwise | | | | |
| | This report is based on translations from the original language into the following language which is the language of a translation furnished for the purposes of: | | | | | | |
| | | international search (Rule 12.3 and 23.1(b)) | | | | | |
| | | publication of the international application (Rule 12.4) | | | | | |
| | | international preliminary examination (Rule 55.2 and/o | | | | | |
| 2. | recei | regard to the elements of the international application, this r iving Office in response to an invitation under Article 14 are report): | rd to the elements of the international application, this report is based on (replacement sheets which have been furnished to the Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to t): | | | | |
| | × | the international application as originally filed/furnished | | | | | |
| | Ш | the description: | | | | | |
| | | pages | as originally filed/furnished | | | | |
| | | pages* | received by this Authority on | | | | |
| | | pages* | received by this Authority on | | | | |
| | | the claims: | | | | | |
| | | nos. | as originally filed/furnished | | | | |
| | | nos.* | as amended (together with any statement) under Article 19 | | | | |
| | | nos.* | received by this Authority on | | | | |
| | | nos.* | received by this Authority on | | | | |
| | | the drawings: | | | | | |
| | | sheets | as originally filed/furnished | | | | |
| | | sheets* | | | | | |
| | | | received by this Authority on | | | | |
| | П | a sequence listing and/or any related table(s) see Suppleme | | | | | |
| 2 | \Box | • | mai box Relating to sequence Listing. | | | | |
| 3. | لـــا | The amendments have resulted in the cancellation of: | | | | | |
| | | the description, pages | | | | | |
| | | | the claims, nos. | | | | |
| | | | the drawings, sheets/figs | | | | |
| | | | | | | | |
| | _ | any table(s) related to sequence listing (specify): | | | | | |
| 4. | | This report has been established as if (some of) the amenda they have been considered to go beyond the disclosure as fil | ments annexed to this report and listed below had not been made, since ed, as indicated in the Supplemental Box (Rule 70.2(c)). | | | | |
| | | the description, pages | | | | | |
| | | the claims, nos. | | | | | |
| | | the drawings, sheets/figs | | | | | |
| | | the sequence listing (specify): | | | | | |
| | | any table(s) related to sequence listing (specify): | | | | | |
| * | If ite | em 4 applies, some or all of those sheets may be marked "supe | erseded." | | | | |

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| Box No. II | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability | | | | | |
|---|---|--|--|--|--|--|
| The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of: | | | | | | |
| | the entire international application | | | | | |
| \bowtie | claims Nos27-29 | | | | | |
| becaus | because: | | | | | |
| \bowtie | the said international application, or the said claims Nos. 27-29 relate to the following subject matter which does not require an international preliminary examination (specify): | | | | | |
| | The subject matter of claims 27 to 29 pertains to | | | | | |
| | a method for treatment of the human body by therapy | | | | | |
| | (PCT Rule 67.1(iv)). | | | | | |
| | the description, claims or drawings (indicate particular elements below) or said claims Nos. are so unclear that no meaningful opinion could be formed (specify): | | | | | |
| | the claims, or said claims Nos are so inadequately supported by the description that no meaningful opinion could be formed. | | | | | |
| \boxtimes | no international search report has been established for said claims Nos. 27-29 | | | | | |
| | the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that: | | | | | |
| | the written form has not been furnished | | | | | |
| | does not comply with the standard | | | | | |
| | the computer readable form has not been furnished does not comply with the standard | | | | | |
| | the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-bis of the Administrative Instructions. | | | | | |
| | See Supplemental Box for further details. | | | | | |

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| Box | | | rticle 35(2) with regard to novelty, inventive step or industrial applicability; pporting such statement | |
|-----|-------------------------------|--------|--|-----|
| 1. | Statement | | | |
| | Novelty (N) | Claims | 5-18, 20 | YES |
| | | Claims | 1-4, 19, 21-26 | NO |
| | Inventive step (IS) | Claims | | YES |
| | | Claims | 1-26 | NO |
| | Industrial applicability (IA) | Claims | 1-26 | YES |
| | | Claims | | NO |
| l | | | | |

2. Citations and explanations (Rule 70.7)

Documents cited in the international search report:

- Document 1: James D. Lewis et al., "An Open-Label Trial of the PPAR Ligand Rosiglitazone for Active Ulcerative Colitis", The American Journal of Gastroenterology, Vol. 96, No. 12, pages 3323 to 3328, 2001
- Document 2: WO 02/100812 A (Eisai Co., Ltd.)
- Document 3: Hitoshi Asakura, "Tokuhassei Enshousei Choushikkan ni Taisuru Men'ekigakuteki Chiryouhou no Genjou", Igaku no Ayumi, Vol. 178, No. 9, pages 519 to 522, 1996
- Document 4: Akihiro Munekata et al., "Shuyousei Daichouen no Shindan to Naika Chiryou no Genjou",
 Igaku no Ayumi, Vol. 178, No. 9, pages 491 to 495, 1996
- Document 5: Tadao Baba et al., "Crohn-byou no Shindan to Chiryou no Genjou", Igaku no Ayumi, Vol. 178, No. 9, pages 496 to 501, 1996

Document 1 indicates that a PPARy agonist and an aminosalicylic acid derivative, anti-inflammatory glucocorticoid, or an immunosuppressive compound are used together.

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Therefore the invention set forth in claims 1 to 4, 19 and 21 to 26 of this international application lacks novelty and does not involve an inventive step in the light of document 1.

The use of specific compounds as a PPARy agonist is disclosed in the invention set forth in claims 5 to 9 of this international application, but these compounds are known as PPARy agonists, as set forth in document 2, and it would be obvious to a person skilled in the art to apply the compound set forth in document 2 as the PPARy agonist in the invention set forth in document 1.

Therefore the invention set forth in claims 5 to 9 of this international application is novel in relation to documents 1 and 2, but does not involve an inventive step.

In the invention set forth in claims 10 to 18 and 20 of this international application, specific substances are used as the aminosalicylic acid derivative, antiinflammatory corticoid or immunosuppressor used in conjunction with the PPARy agonist, but documents 3 to 5 set forth treatment of inflammatory bowel disease such as ulcerative colitis or Crohn's disease, wherein sulfasalazine or mesalazine is used as the aminosalicylic acid derivative; prednisolone, betamethasone and butesonid are used as anti-inflammatory glucocorticoid; cyclosporine, azathioprine are used as immunosuppressors; anti-TNF α antibodies are used; and metronidazole is used as a compound having an anti-infection effect. Documents 3 to 5 also indicate that these medical agents are used

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

in combination, therefore it would be easy for a person skilled in the art to employ the medical agents set forth in these documents in an appropriate combination in the light of documents 3 to 5.

Therefore the invention set forth in claims 10 to 18 and 20 of this international application is novel in the light of documents 1 to 5, but does not involve an inventive step.